

**REMARKS**

Upon entry of the present amendment, claims 1-18 are in the application, of which claims 1, 6, 11 and 12 are independent. New claims 13-18 have been added by the present amendment.

The above-identified Office Action has been reviewed, the references carefully considered, and the Examiner's comments carefully weighed. In view thereof, the present Amendment A is submitted. It is contended that by the present amendment, all bases of rejection set forth in the Office Action have been traversed and overcome. Accordingly, reconsideration and withdrawal of the rejections presented in the Office Action are respectfully requested.

**In the Specification**

The specification is amended herein to correct informalities. No new matter is added by this amendment to the specification.

**In the Claims****Claim Rejections – 35 USC 102**

At page 2, item 1 of Office Action, the Examiner rejected Claims 1, 5-6, and 10-12 under 35 USC 102(b) as anticipated by Handfield (US 5741966). The Examiner states that Handfield's vehicle tire monitoring system includes all of the features defined in the rejected claims, with particular reference to the discussion at his col. 4, lines 19-25, col. 6, lines 56-63 and col. 7, lines 45-51.

**Applicant's Response**

The applicant has carefully considered the Examiner's rejection and the disclosure Handfield reference. The applicant respectfully disagrees with the rejection since Handfield's system does not include all of the claimed features, as is the accepted standard for anticipation.

**The Standard for Anticipation**

In the case of *Motorola, Inc. v. Interdigital Technology Corp.*, 121 F. 3d 1461 (CAFC 1997), the Court of Appeals for the Federal Circuit stated:

“For a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art (citation omitted). ‘The (prior art) reference must describe the applicant’s claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it’ (citations omitted) . Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, that presumed knowledge does not grant a license to read into the prior art reference teachings that are not there.”

The above-quoted passage is consistent with many previous cases of the Federal Circuit and with MPEP 2131, which reiterate the rule that **in order to anticipate a claim, a reference must teach every element of the claim**. The applicant respectfully submits that Handfield does not disclose each and every element of applicant’s claimed invention.

Most notably, Handfield’s system does not include a value correcting means as defined at the last clause of independent claim 1, or the corresponding features defined at the last clause of each of independent claims 6, 11 and 12. Although Handfield’s system includes first and second temperature sensors and determines a difference between the temperatures detected by the two sensors “...to determine if the tire temperature is abnormal given ambient conditions”, Handfield’s system does not include anything comparable to the claimed value correcting means. For example, the applicant’s claimed value correcting means corrects a predetermined (appropriate pressure) value based on a difference between the detected tire internal temperature and ambient temperature *when the tire pressure is to be adjusted*.

Rather, Handfield merely indicates that:

he determines "...a temperature parameter in dependence upon the tire temperature signal and the ambient temperature signal", col. 4, lines 19-30;

"Pressure signal 39 and temperature signal 37 are input to pressure calibration unit 40 which corrects the pressure signal based upon the sensed temperature. Temperature 37 is also fed to protocol encoder 46. The pressure 41 determined by pressure calibration unit 40 is fed to threshold detector 42 which compares this pressure to one or more selected thresholds to determine if the pressure is in an appropriate operating range. In the preferred embodiment, the pressure is compared with an ideal pressure reading to determine if it is within plus or minus three pounds per square inch of that ideal pressure. If the sensed pressure does not fall within this range, an indication signal is sent to protocol encoder 46 (emphasis added)." Col. 6, lines 56-67; and

"If an alarm condition is sensed meaning that either the temperature or the pressure in one of the tires has exceeded preset limits or thresholds, the system responds by flashing the tire alarm display in providing an audio alarm from buzzer 118 presented in FIG. 5 as shown in block 438." Col. 16, lines 44-48.

Thus, while Handfield's system may be interpreted to broadly include a "value correcting means", any such means is different from the claimed value correcting means for at least two significant reasons. First, Handfield does not correct a predetermined (appropriate pressure) value based on a difference between tire temperature and ambient temperature, but instead corrects sensed pressure (pressure signal 39) based upon the sensed temperature (temperature signal 37), and subsequently compares the corrected pressure and the sensed temperature to preset limits or thresholds for same. Secondly, Handfield does not make his corrections "when the tire pressure is to be adjusted", as claimed, but continuously makes such corrections regardless if/when tire pressure is to be adjusted.

As will be appreciated, the claimed value correcting means is very advantageous over the corresponding aspects of Handfield's system, e.g., it is much more efficient as correction only occurs when necessary.

Further, Handfield's system does not include the value correcting means/step as set forth in dependent claims 5 and 10, i.e., which corrects the predetermined value ... when it is determined to be in a state that the tire pressure is to be *adjusted stably*. Handfield does not disclose any mechanism-means for adjusting tire pressure or any mechanism-means for determining a state in which pressure is to be adjusted stably. Hence, he certainly does not disclose or suggest any correlation between his value correcting means (pressure signal adjusting mechanism) and a determination that tire pressure is to be adjusted stably.

Because the Examiner has not established *prima facie* anticipation of the subject matter thereof under 35 USC 102(b), the claims 1, 5-6, and 10-12 are believed to avoid rejection as anticipated by Handfield.

#### **Claim Rejections – 35 USC 103**

At page 3, item 1, of Office Action, the Examiner rejected Claims 2, 3, 7 and 8 under 35 USC 103(a) as being unpatentable over Handfield et al. in view of Brown et al. (US Patent Application Publication No. 20040017289). Claims 4 and 9 are assumed by the applicant to be included in this rejection, as these claims are expressly addressed by the Examiner in the discussion of the rejection.

Regarding claims 2, 3, 7 and 8, the Examiner states that while Handfield's vehicle tire monitoring system does not include value correcting means which corrects the predetermined value such that it increases with increasing difference between the detected temperatures (when one rises above the other), or that the predetermined value is set based on a recommended cold pressure, it would have been obvious to persons of ordinary skill in the art at the time of the invention to modify Handfield's system to include such features based on the teachings of Brown. The Examiner considers that Brown teaches such features at his paragraph [0083] and in relation to his

equations 5-6 on his page 4.

Applicant's Response

The applicant has carefully considered the Examiner's rejection. The applicant respectfully disagrees with this rejection for the reasons stated above related to the deficiencies of Handfield with respect to the base claims, which are not overcome by any additional teachings of Brown. The applicant further disagrees with this rejection because Brown does not otherwise disclose or make obvious the additional features set forth in these dependent claims.

Although Brown's system is more complex-advanced than that of Handfield, Brown's system also does not include a value correcting means which functions in relation to a *predetermined* (appropriate pressure) value based on a difference between the detected tire internal temperature and ambient temperature *when the tire pressure is to be adjusted*, such as defined in the present claims, but instead corrects/evaluates measured data (according to an advanced, robust method involving fuzzy logic) and then compares same with one or more warning pressure conditions that have been determined based on collected data. See, for example, the discussion at Brown's paragraphs [0010] and [0050] – [0057], wherein it is explained that, "A reference temperature, preferably the ambient temperature, is established and at least one warning pressure threshold set at the reference temperature. .... Gauge pressure and gauge temperature are measured within a tire cavity and corrected to a filtered pressure value at the reference temperature utilizing equations derived from the Ideal Gas Law. The corrected or filtered pressure value is compared against the pressure warning threshold(s) and one or more alarms are issued in the event that the filtered pressure falls below the warning threshold(s) (emphasis added)." Essentially, Brown determines appropriate threshold value(s) based on ambient temperature and collected tire pressure and temperature data, subsequently corrects-modifies detected (gauge) tire pressure to a cold

inflation pressure, and then compares this to the determined threshold value. Thus, he does not correct a predetermined comparison value based on a difference between tire and ambient temperatures, as claimed, but originally determines the warning pressure condition(s) based on the measured ambient temperature and other factors, and later uses such determined condition(s) for comparison purposes, without changing or correcting same.

In this regard, the applicant respectfully submits that the Examiner's reliance on Brown's equations 5, 6 to show that Brown's predetermined value is increased with increasing temperature difference or as the tire internal pressure rises above a detected ambient temperature, such as defined in claims 2, 3, 7 and 8, is misplaced. The equations 5, 6 are used by Brown in converting a detected-gauge pressure to a cold inflation pressure.

As regards claims 4 and 9, the Examiner states that Handfield does not teach the predetermined value is set based on a recommended cold pressure, but that Brown teaches a predetermined value is set based on a recommended cold pressure (0083), and that it would have been obvious to modify the deficiencies of Handfield with the teachings of Brown to derive a model that provides a leak detection warning.

The applicant respectfully disagrees with this rejection for the reasons stated above related to the deficiencies of Handfield with respect to the base claims, which are not overcome by any additional teachings of Brown.

#### **Other Matters**

The applicant has added new claims 13-18 herein to further distinguish the applicant's invention from that of the cited prior art. New claims 13-15 depend directly or indirectly from claim 5, and new claims 16-18 depends directly from claim 10. New claims 13-18 recite features of the tire pressure adjustment confirmation mechanism, and are fully supported by the

specification, e.g., on pages 13 and 14 and in Figs. 7 and 9. No new matter has been added by these amendments. These features are not disclosed or suggested by the cited references.

**Conclusion**

Based on all of the foregoing, applicant respectfully submits that all of the rejections set forth in the Office Action are overcome, and that all of the pending claims are believed to be allowable over all of the references of record, whether considered singly or in combination.

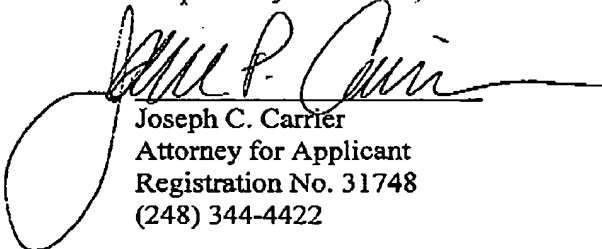
Applicant requests reconsideration and withdrawal of the rejection of record, and allowance of the pending claims.

If the Examiner is not fully convinced of all of the claims now in the application, applicant respectfully requests that the Examiner telephonically contact applicant's undersigned representative to expeditiously resolve prosecution of the application.

Favorable consideration is respectfully requested.

Customer No. 21828  
Carrier, Blackman & Associates, P.C.  
24101 Novi Road, Suite 100  
Novi, Michigan 48375  
May 23, 2005

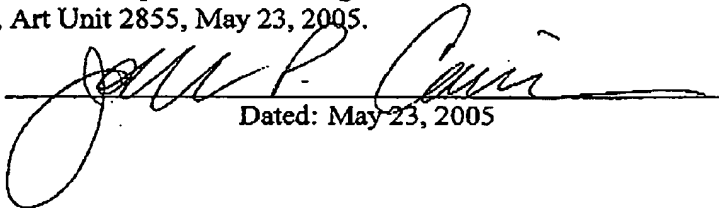
Respectfully submitted,

  
Joseph C. Carrier  
Attorney for Applicant  
Registration No. 31748  
(248) 344-4422

**CERTIFICATE OF TRANSMISSION**

I hereby certify that this correspondence is being sent via facsimile transmission to the US Patent & Trademark Office, Art Unit 2855, May 23, 2005.

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